

SilSo SE2014 2 part encapsulation and potting silicone

Description	Property	Test Method	Value
This is a 2-component, silicone elastomer system specially designed for electronic potting and encapsulation applications. It offers good protection against chemicals, environmental contamination, mechanical shock, vibration and impact damage. It can be employed in areas where low flammability is a prerequisite. The cured elastomer can be repaired. The component parts have relatively low viscosities and are readily mixed either by hand or machine.	Uncured Product		
	Appearance		Viscous liquid
Key Features	Color A		Off white
	Color B		Green
• Light weight and low density • Long pot life • UL recognised in file number E334038 • Very high dielectric strength	Cure Profile		>23°C
	Cure Type		Addition
Application	Density A	BS ISO 2781	0.79
	Density B	BS ISO 2781	0.77
Coating for the umbilical cable ROV underwater remotely operated vehicles	Mix Ratio By Weight		1:1
	Pot Life hrs at 23°C/73°F		6 hours
Use and Cure Information	Rheology		Liquid
	Self Bonding		No
IMPORTANT:	Specific Gravity A		0.73
	Viscosity A	Brookfield	12200 cP
The 'A' part of the product contains the platinum catalyst, great care should be taken when using automatic dispensing equipment. Please ensure that it is not contaminated by residual hydride containing rubber in the dispensing equipment, as curing will result. If in doubt, it's advised to thoroughly purge the equipment with a suitable hydrocarbon solvent or silicone fluid.	Viscosity B	Brookfield	7200 cP
	Viscosity Mixed	Brookfield	10000 cP
Mixing	Cured Product		
	177°C for 17 minutes		
Both the 'A' and 'B' parts should be well stirred to ensure the material is uniform and any settled the fillers have been remixed.	Color		Green
	Density	BS ISO 2781	0.73 g/cm3
Place the required amount of 'A' and 'B' parts by weight at the mix ratio shown opposite, in a clean plastic or metal container of approximately 3 times their volume, and mix until the colour of the mixture is uniform. For best results, we recommend degassing. Degass by intermittent evacuation, the larger volume of the mixing vessel helps prevent overflow during this operation. In the case of automatic dispensing with static mixing head, the two components should be degassed before processing. Recommended vacuum conditions are 30-50 mbar intermittently over 5-10 minutes. Cast the mixture either by gravity or pressure injection.	Elongation at Break	ISO 37	54 %
	Hardness Shore A	ASTM D 2240-95	67
Inhibition of Cure	Linear Coefficient of Thermal Expansion (ppm/°C)		218 ppm/°C
	Max Working Temp		200 °C / 392 °F
Great care must be taken when handling and mixing all addition cured silicone elastomer systems, ensuring that all the mixing tools (vessels and spatulas) are clean and constructed in materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds of nitrogen, sulphur, phosphorus and arsenic; organotin catalysts and PVC stabilizers; epoxy resin catalysts and even contact with materials containing certain of these substances e.g. moulding clays, sulphur vulcanised rubbers, condensation cure silicone rubbers, onion and garlic.	Min Working Temp		-55 °C / -67 °F
	Tensile Strength	ISO 37	2.7 N/mm2 / 392 psi
Curing Conditions	Thermal Conductivity		0.14 W/mK
	Volume Coefficient of Thermal Expansion (ppm/°C)		818 ppm/°C
The data offers a guide to the rate of cure at various temperatures, mixing of the components at temperatures between 15 and 25°C is recommended to ensure adequate pot life for degassing and handling. The pot life can be extended to several hours by chilling the components before mixing.	Electrical Properties		
	Dielectric Constant	ASTM D-150	2.29
It is important to check the compatibility in preliminary tests if unknown substrates are used.	Dielectric Strength kV/mm	ASTM D-149	32.1 kV/mm / 816 V/mil
	Dissipation Factor	ASTM D-150	0.00174
Health & Safety	Volume Resistivity (Ohms cm)	ASTM D-257	1E+15 ohms cm
	Storage		
Safety Data Sheets available on request.	Max Storage Temperature		30 °C / 86 °F
	Shelf Life		12 mths
Packaging			
CHT Encapsulants are available in a variety packaging including bulk containers. Please contact our sales department for more information.			

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